



*Element Materials Technology - Fort Wayne*  
328 Ley Rd.  
Fort Wayne, IN 46825  
TEL: (260) 424-1622 FAX: (260) 424-9124  
Website: [www.element.com](http://www.element.com)

December 18, 2019

Nickie Geros  
East Chicago Sanitary District  
5201 Indianapolis Blvd  
East Chicago, IN 46312  
TEL: 219-391-8466  
FAX:

RE: S-901

Order No.: 19121295

Dear Nickie Geros:

Element Materials Technology - Fort Wayne received 2 sample(s) on 12/11/2019 for the analyses presented in the following report.

In accordance with your instructions, Element Materials Technology Indiana conducted the analysis shown on the following pages on samples submitted by your company. The results relate only to the items tested. Unless otherwise noted, all analysis was conducted using approved methodologies from EPA, SM, or other client-specified methods. All relevant sampling information is on the attached chain-of-custody form. The initials SUB as the analyst designate any testing sub-contracted by Element Materials Technology Indiana.

This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Ryan Fitzwater  
General Manager  
328 Ley Rd.  
Fort Wayne, IN 46825

Original



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## Case Narrative

WO#: **19121295**

Date: **12/18/2019**

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**CLIENT:** East Chicago Sanitary District

**Project:** S-901

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The surrogate recovery was outside of acceptance limits for the 625\_Special analysis on sample 19121295-001C due to suspected matrix interference. This data is reported based upon the acceptable recoveries in additional associated QC.

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Original



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## Analytical Report

(wastewater)

WO#: 19121295

Date Reported 12/18/2019

**CLIENT:** East Chicago Sanitary District  
**Project:** S-901  
**Lab ID:** 19121295-001  
**Client Sample ID** #901  
**Sample Location:**

**Collection Date:** 12/10/2019 9:45:00 AM  
**Matrix:** WASTEWATER

Analyses	Result	RL	Qual	Units	DF	PL	Date Analyzed
<b>CYANIDE, AVAILABLE BY LIGAND EXCHANGE</b>				<b>OIA-1677-09</b>		Analyst: <b>AN</b>	
Cyanide, Available	0.13	0.0020		mg/L	1		12/12/2019 9:00:00 AM
<b>OIL AND GREASE, TOTAL</b>				<b>E1664</b>		Analyst: <b>HF</b>	
Oil & Grease, Total	9.6	5.0		mg/L	1	50.0	12/12/2019 3:07:20 PM
<b>SV COMPOUNDS FOR CATEGORICAL RQTS</b>				<b>E625</b>		Analyst: <b>SF</b>	
Bis(2-ethylhexyl)phthalate	< 0.020	0.020		mg/L	2	0.16	12/16/2019 8:51:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
	PL	Permit Limit	PQL	Practical Quantitation Limit
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

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## Analytical Report

(wastewater)

WO#: 19121295

Date Reported 12/18/2019

**CLIENT:** East Chicago Sanitary District **Collection Date:** 12/10/2019 9:45:00 AM  
**Project:** S-901  
**Lab ID:** 19121295-002 **Matrix:** WASTEWATER  
**Client Sample ID** #901  
**Sample Location:**

Analyses	Result	RL	Qual	Units	DF	PL	Date Analyzed
<b>FLUORIDE</b>					<b>E300.0</b>		Analyst: <b>HN</b>
Fluoride	2.7	0.2		mg/L	2	2.9	12/12/2019 6:00:30 PM
<b>CHEMICAL OXYGEN DEMAND</b>					<b>M5220 D</b>		Analyst: <b>NB</b>
Chemical Oxygen Demand	679	10.0		mg/L	1		12/12/2019 7:44:00 AM
<b>AMMONIA AS N</b>					<b>E350.1</b>		Analyst: <b>AC</b>
Nitrogen, Ammonia (As N)	34.0	0.500		mg/L	5	77.0	12/13/2019 2:38:15 PM
<b>PHENOLICS IN WASTEWATER</b>					<b>E420.1</b>		Analyst: <b>ANS</b>
Phenolics, Total Recoverable	0.089	0.050		mg/L	2	0.700	12/17/2019 3:03:18 PM
<b>TOTAL PHOSPHORUS</b>					<b>M4500-P F</b>		Analyst: <b>HN</b>
Total Phosphorus	0.538	0.100		mg/L	1	5.50	12/13/2019 4:06:12 PM
<b>TOTAL SUSPENDED SOLIDS</b>					<b>M2540 D</b>		Analyst: <b>NB</b>
Suspended Solids (Residue, Non-Filterable)	143	36		mg/L	1		12/12/2019 1:42:00 PM
<b>MERCURY</b>					<b>E245.1</b>		Analyst: <b>FJR</b>
Mercury	0.00012	0.00010		mg/L	1		12/13/2019 12:36:19 PM
<b>METALS IN WATER BY ICP-MS, TOTALS</b>					<b>E200.8</b>		Analyst: <b>FJR</b>
Arsenic	0.0109	0.00020		mg/L	1	0.500	12/17/2019 12:08:39 PM
Chromium	0.00411	0.00040		mg/L	1	0.282	12/17/2019 12:08:39 PM
Copper	0.00620	0.00020		mg/L	1	0.301	12/17/2019 12:08:39 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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	PL	Permit Limit	PQL	Practical Quantitation Limit
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

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## Analytical Report

(wastewater)

WO#: 19121295

Date Reported 12/18/2019

**CLIENT:** East Chicago Sanitary District **Collection Date:** 12/10/2019 9:45:00 AM  
**Project:** S-901  
**Lab ID:** 19121295-002 **Matrix:** WASTEWATER  
**Client Sample ID** #901  
**Sample Location:**

Analyses	Result	RL	Qual	Units	DF	PL	Date Analyzed
METALS IN WATER BY ICP-MS, TOTALS				E200.8	Analyst: FJR		
Lead	0.00264	0.00020		mg/L	1	0.224	12/17/2019 12:08:39 PM
Molybdenum	0.0195	0.00020		mg/L	1	0.200	12/17/2019 12:08:39 PM
Nickel	0.0116	0.00100		mg/L	1	0.390	12/17/2019 12:08:39 PM
Zinc	0.0842	0.00040		mg/L	1	1.48	12/17/2019 12:08:39 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
	PL	Permit Limit	PQL	Practical Quantitation Limit
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Original




W157  
m104

## Chain of Custody

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Laboratory

19121295

Company Name:		Client Information:		Billing Information:		PO Number:		Project Name/Number:		Page 1 of 1	
Contact Name:		East Chicago Sanitary District		Same				S-901		Matrix Code	
Address:		Nickie Geros				Quote Number:		Sampler's Signature		DW = Drinking Water WW = Waste Water GW = Ground Water	
		5201 Indianapolis Blvd								AQ = Aqueous OT = Other	
						Required QC Level				SL = Sludge O = Oil F = Food NG = Natural Gas NGL = Natural Gas Liquid PW = Produced Water CF = Completion Fluid	
City, State Zip:		East Chicago IN 46312						Shipping Method:		SOL = Solid SO = Soil SW = Swab	
Phone Number:		219-391-8466		Ext. 240				Bill Monthly		UPS / FedEx / Airborne DHL / <u>Element</u> / Hand / Mail	
Fax Number:								<input type="checkbox"/> Yes <input type="checkbox"/> No			
E-mail Address:		ngeros@eastchicago.com									

Which Regulations Apply:		Turn Time	(Rush turn times will incur a surcharge and must be pre-approved by lab.)		Container	Pres.	Requested Tests								Comments		
<input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> NPDES <input type="checkbox"/> USDA/FDA <input type="checkbox"/> RECAP/RISC		5 TAT			Quantity	Type P=Plastic, G=Glass, V=Vial	HCl, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , NaOH, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	CYANIDE 1677	Oil & Grease Total	Bis(2EH) Phthalate	*Metals	NH <sub>3</sub> , T.PHOS, COD	PHENOL	300:Fl,	TSS		
Sample ID/Description		Collection Information															
		Date	Time	Grab / Composite	Matrix												
S-901 Grab		12-10-19	9:45	Grab	WW	1	P	NAOH	X								*As, Cr, Cu, Pb, Mo, Ni, Zn, & Hg, Samples Meet Acceptance Policy Yes No
S-901 Grab				Grab	WW	1	G	H2SO4		X							
S-901 Grab				Grab	WW	1	G	NONE		X							
S-901 Composite				Comp	WW	1	P	HNO3			X						
S-901 Composite				Comp	WW	1	P	H2SO4				X					
S-901 Composite				Comp	WW	1	G	H2SO4					X				
S-901 Composite				Comp	WW	2	P	NONE						X	X		

Relinquished by	Date/Time	Received by	Date/Time	Composite Sampler: Start Date/Time: <u>2-10-15</u> End Date/Time: <u>2-11-19</u>
<i>W. Jackson</i>	12.11.19 / 10:10	<i>James Boyce</i>	12.11.19 10:10	Received at lab on ice?
<i>James Boyce</i>	12.11.19 / 14:35	<i>T. Tindosmy</i>	12.11.19 14:35	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: <u>2.4c</u>

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

88800 North US 31 Columbus, IN 47201 USA P 812-375-0531 F 812-375-0731 E 812-375-0731	328 Ley Road, Suite 100 Fort Wayne, IN 46825 USA P 260-471-7000 F 260-471-7777 E 260-471-7777	909 Executive Dr. Warsaw, IN 46580 USA P 574-267-3305 F 574-269-6669 E 574-269-6669	3371 Cleveland Road, Suite 100A South Bend, IN 46628-9780 USA P 574-217-0707	2417 W. Pinhook Rd Latayette, LA 70508-3344 USA P 337-235-0483 F 337-235-0483 E 337-235-0483
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